

SERInews

Vol. 4 No. 07, Mar., 2010



*With you in Pursuit of Sustainable
Management of Finite Water Resources*

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Point for discussion this month Efficiency and requirement of dams.

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Shrishti Eco-Research Institute, Pune

Eternal Words

As a scientist, many of us have had profound experiences of awe and reverence before the universe. We understand that what is regarded as sacred is more likely to be treated with care and respect. Our planetary home should be so regarded. Efforts to safeguard and cherish the environment need to be infused with a vision of the sacred. At the same time, a much wider and deeper understanding of science and technology is needed. If we do not understand the problem, it is unlikely we will be able to fix it.

Carl Sagan



Dear Readers,

The cover photo is of UdaiSagar Lake of Udaipur, the top most tourist destination in the world! There are many such small and large lakes in Rajasthan. I think from ancient time these Rajasthan people have understood the importance of water very well. We can see many man made lakes fed by rivers in Rajasthan. UdaiSagar is fed by Ahar River. In this issue you can read about the success story of Ahar River Eco restoration.

The support we got from local people, NGO's and Government while doing this project was amazing! Everyone was working towards the same goal of restoring the natural beauty of river and to see the river full of life! And those unidirectional efforts are now bearing fruits of success!

In last SERInews issue we have published news about the Ganga Yamuna Panchayat. We have received some comments about the packaged drinking water bottles kept in front of Shri, Shankaracharyaji and other delegates. I am very happy that our readers are reading SERInews very carefully! As mentioned earlier the event management was done by Nehru Museum, New Delhi. They manage meetings and conferences for many government and foreign delegates. Through practice they have kept those bottles! But nobody drank the water from those bottles and on day one only Rajendrasinhaji and other guests showed their reluctance for the bottled water. So hiding those bottles, while taking photos would have been very unfaithful. The other side of coin is that we can not dare to touch the polluted water of our holly rivers then who will dare to drink it?

22nd March was World Water Day. You might have attended some or the other programme on this occasion. Have you made any resolution? Its now time to act at individual level also. So that we can see big changes at the society level. You yourself can do water audit of your house and you will certainly be able to stop the wastage of some quantity of water everyday. And those saved drops of water are fix deposits for the generation next!

Thank you,
Chief Editor

A successful Story of Ecological Restoration of Ahar River

How it began:

Ahar River of Udaipur is highly contaminated with domestic and industrial waste water when it passes through Udaipur.

Udaipur is number one tourist destination all over the world. The environmentally awakened citizens were trying to rejuvenate the ecologically dead river infested by water hyacinth as a people's initiative.

We have reported in Nov.2009 issue of SERInews that An international conference on Integrated Lake Basin Management was organised by Jheel Sanrakshan Samitee with support from International Lake Environment Committee on 11th/12th Aug. 2009 at Udaipur. Shreeji Arwind Singhji of Maharana Mewar Charitable Foundation (MMCF) inaugurated the conference in the beautiful grand Darbar Hall of The City Palace Complex.

Dr. Nakamura, Chairman of Scientific Committee of International Lake Environment Committee was present when Shreeji Arwind Singhji addressed the August gathering to ponder on restoration of lakes of the number one tourist destination of the world – the lake city – Udaipur.

When group of experts from this conference visited Ahar River, they found it dead that too in the month of August means in the monsoon. Due to the stink odour, standing for few minutes by the river side was very difficult.

This conference was the motive behind this success story of ecological restoration of Ahar River. Members of Jheel Sanrakshan Samitee requested to Sandeep Joshi of Shrishti Eco - Recherche institute to design the ecological restoration plan for that river.

Jheel Sanrakshan Samitee under the guidance of eminent personalities of Udaipur is working towards protection of lakes. Dr. Tej Rajdhan, Er.Anil Mehta are devoted members of Jheel Sanrakshan Samitee. Since Ahar river is feeding the UdaiSagar lake one of the historical lakes in Udaipur, Jheel Sanrakshan Samitee took the initiative to restore The Ahar River. This was supported by Udaipur Chamber of Commerce and Industry (UCCI) and Udaipur Improvement Trust (UIT) – (JNNURM Cell)

Support from the Government:

The local government authorities were very cooperative and helpful. All the permissions required from the local authorities were obtained by Jheel Sanrakshan Samitee and UCCI. Within three months they got clearance from the local government for the activities to be done in and around river bed



The work started:

With the help of Udaipur Chamber of Commerce and Industry (UCCI) and Udaipur Improvement Trust (UIT) – (JNNURM Cell), Jheel Sanrakshan Samitee Started the ground work for installation of Green Bridges – horizontal Eco – filtration system – to filter out the pollution using ecosystem approach as per the design given by SERI.

With the material support and guidance for the water hyacinth removal and desilting from Green Infrastructure (GRIN), Pune, Jheel Sanrakshan Samitee volunteers develop in all six green bridges in a stretch of 1.6 Km of the Ahar River having flow about 100 MLD.

The Green Bridge ecotechnology applies filtration power of biologically originated cellulosic / fibrous material in combination with sand and gravels and root systems of green plants.

All the floatable and suspended solids are trapped in this biological bridge and the turbidity of flowing water is reduced substantially. The green plants growing there help in absorption of soluble substances including heavy metals.

The result:

The samples of the untreated and treated water were collected and tested by Dr. Fatma Liyaquat of Vedanta Company to ensure the reduction in pollution level. The system installation is completed in Feb, 2010. As per the report it can be said that within 15 days the reduction in BOD is about 50% and there is also considerable reduction in Sulphates solids. It is curious to note that the copper reduction in Green Bridges system is more than 80%. Now the river is steaming with increased biodiversity and same migratory birds. In last three days some turtles have spotted in the river which used to be inhabitants of the river before it polluted.

As per the local people, it's now very easy to breath! The bad odour in the atmosphere has completely gone.

More than 200 students and scientists have visited the site after compliance of work. SERI and Jheel Sanrakshan Samitee will monitor the seasonal changes through out the year.

This all has happened without using single unit of electricity and without addition of any chemical. So maintenance of this system is very easy and with less recurring expenses.

Remarks:

After completion of the work Mr.Arvind Singhal, chairman of UCCI, wrote to Mr.Probir Sinha of GRIN _

“The members of the Chamber are extremely happy to have taken up the Project in hand which is now showing positive results. For sure the Government officials particularly the Divisional Commissioner is extremely happy about it. As such this looks to be a successful story and that being the case we are extremely happy that UCCI was associated with it. Thank you once again for your support.”

Many people are visiting the place. Students are coming to understand the process and also are showing interest in monitoring the system. Scientists from different government laboratories have visited the eco-restoration site. Local people were very co-operative during the installations.

Side Story

When the work of installation started on Ahar, one local boy recognized the importance of tea for the labours as well as experts. So he started one small tea stall near the site. Since this place is around 9-10 km away from Udaipur town all people working on eco restoration site were dependent on that stall. At a time hundreds of people were working. The boy was very short of money to invest. Jheel Sanrakshan Samitee offered him some financial help as a loan. The boy was so overjoyed that he named his tea stall as “GREEN BRIDGE RESTAURENT”. He then kept some snacks for sale with tea. And in a short period of time he repaid his loan.

Thus it's a success story for everyone involved or associated with this project. After seeing the results The Commissioner of Udaipur has ordered to install twenty more GREEN BRIDGES covering maximum stretch of river.

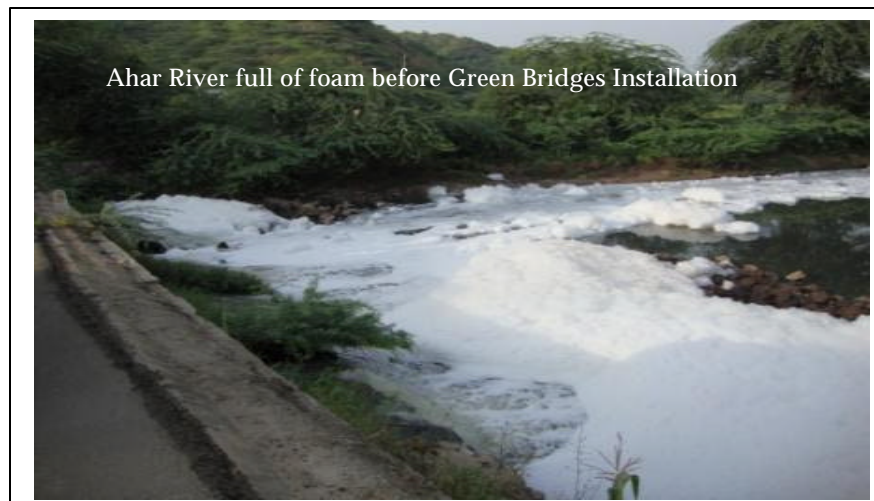
This whole project was based upon the six pillars of ILBM (International Lake Basin Management) viz. Participations, Instructions, Policies, Technologies, Information and Finance. Every pillar is equally important to give strength to the strong success giving structure.

- Priyamvada

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An international conference held at Dabar hall of City Palace in Udaipur on 11th /12th Aug.2009





Green bridges and solid waste trapping screen in Ahar River

